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**PUBLIC AND PRIVATE SECTOR MANAGERS:
ARE THEY REALLY THAT DIFFERENT?**

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managers and executives in terms of job content, job characteristics, and perceptions of the skills required for effective job performance. Results indicate that (1) managers in both sectors were very similar in rating job content, (2) both groups of managers indicate that they do not have time for reflective, systematic planning, and (3) public and private sector managers agree on their assessment of the required characteristics that are necessary for effective job performance. Findings suggest that a considerable degree of overlap exists between the two sectors with respect to characteristics that should be assessed when selecting, appraising, or training managerial employees.

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FOREWORD

The objective of this work, which was conducted under Independent Research/Independent Exploratory Research funding, was to compare the nature of managerial and executive jobs in the public and private sectors. Results are particularly timely, since they can be used in the implementation of the Senior Executive Service portion of the Civil Service Reform Act of 1978.

A shorter version of this study was presented at the national meeting of the Academy of Management in August 1980.

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SUMMARY

Problem

Relatively little information is available as to the nature of civil service jobs at the Senior Executive Service (SES) level. Since the passage of the 1978 Civil Service Reform Act (CSRA), which mandated new systems for executive selection, development, and performance appraisal, the importance of describing managerial and executive jobs in the public sector has increased tremendously. Further, recent attention to the public sector emphasizes the relevance of comparing managerial work in the public and private sectors.

Purpose

The purpose of this research was to compare high-level public and private sector managerial and executive jobs in terms of (1) job content (i.e., the roles and functions performed), (2) job characteristics (i.e., the way managers and executives accomplish their roles and functions), and (3) perceptions of the skills, knowledge, and abilities required for effective job performance in the two sectors.

Approach

Data were collected through structured questionnaires mailed to all Navy career civilian executives holding GS-16, 17, 18, or equivalent public law positions ($N = 370$) and to a sample of managers and executives who were employed in a variety of southern California service and manufacturing firms ($N = 228$). Both groups completed the same questionnaire items measuring job content, job characteristics, and perceived skills. Job content and job characteristic items were derived from previous research on the nature of managerial work by Mintzberg.

Results

1. A factor analysis of 50 specific work activities resulted in the identification of five major roles associated with Navy civilian executive jobs: (a) leadership and supervision, (b) information gathering and dissemination, (c) technical problem solving, (d) decision making, planning, and resource allocation, and (e) negotiation. The factor analysis for private sector managers and executives also yielded five major roles, which were very similar to those derived from the more homogenous public sector sample.

2. The relative importance of job content (as indicated by the rank orderings) was very similar for managers and executives in the two sectors. The Spearman rank order correlation between the public and private sector rankings was .87 ($p < .01$).

3. With respect to job characteristics, results suggest that public sector jobs were characterized more than private sector jobs by a constant barrage of crises, "fire drills," and meetings that consume an unnecessary amount of time and make it even more difficult for the public sector executive to set and keep a work schedule.

4. Both public and private sector executives agree that the most important characteristics required for effective job performance involve interpersonal skills and managerial ability. Of the 30 different skills, knowledge, and abilities, significant mean differences ($p < .01$) were found on only six items.

Conclusion

Results clearly suggest that generalizations regarding differences between public and private sector managers and executives are frequently overstated. Moreover, with the recent CSRA changes, one can anticipate even closer parallels between the two sectors.

Recommendations

1. Executive selection and development programs in both the public and private sectors should be based on identified job activities required at the executive level.
2. Executive performance appraisal systems should be developed around identified job activities. Appraisal factors should stress objective, job-related behaviors, activities, and behaviorally defined personality traits that are required for present or future job success.

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INTRODUCTION

Problem

Since the passage of the 1978 Civil Service Reform Act (CSRA), which mandated new systems for executive selection, development, and performance appraisal, the importance of describing the public sector job and identifying what executives actually do in accomplishing the requirements of their jobs has increased. Although the CSRA has prompted a variety of empirical studies in an attempt to understand more clearly the nature of public sector jobs, little information exists concerning the similarities of and differences between managerial or executive jobs in the public and private sectors.

Background

While there is a large body of literature on what constitutes management and how to select and develop effective managers, most of the literature has been developed with the private sector manager in mind. Executive behavior in the public sector has received considerably less systematic attention. Consequently, little empirical information is available concerning similarities of or differences between management functions in the private and public sectors.

Much of what has been written on management since Fayol (1916) first introduced the notion of POSDCORB (planning, organizing, staffing, directing, coordinating, reporting, and budgeting) is based on speculation regarding what managers or their subordinates say they do or ought to do. Relatively little of this information is based on what managers or executives actually do. In addition, little of this literature pertains to top-level executives. The majority of management literature and theory is either directed at middle- or first-level supervisors or treats management as a function that is the same across all hierarchical levels and functional areas. Moreover, much of the literature has dealt with only one aspect of management; namely, leadership. While other aspects of management, such as decision making, resource allocation, and negotiation, have received some attention, it has been far less than they deserve.

Although research investigations have been directed at examining the personal styles and characteristics of managers, relatively few have investigated the behavioral requirements of these positions. Some researchers have used self-descriptive questionnaires or peer group ratings to study executive and managerial jobs (Hemphill, 1959; Morse & Wagner, 1978; Tornow & Pinto, 1976). Others have used a work diary to collect data on the work activities of managers (Burns, 1957; Horne & Lupton, 1965; Stewart, 1976). In this latter method, managers keep track of their time using pre-coded activity diaries. Work diary studies generally find that managers spend much time in informal "face-to-face" communication and that the numerous interruptions in their jobs leave them with little time to reflect and plan.

One particularly interesting and important study of managerial activities was conducted by Mintzberg (1973, 1975). After analyzing extensive records of types of mail received by executives and observing five executives at work, Mintzberg identified ten basic managerial roles within three role groups (interpersonal, informational, and decisional) that are common across executive jobs. These roles are listed and defined in Table 1.

Findings from a number of recent studies (Harrison, 1978; Kurke & Aldrich, 1979; Ley, 1978; Morse & Wagner, 1978; Whately, 1978) support the general validity of Mintzberg's roles and indicate that the relative amount of time spent in these roles is

Table I
Summary of Executive Roles

Role	Definition ^a	Identifiable Activities from Study of Chief Executives
Interpersonal		
Figurehead	Symbolic head; obligated to perform a number of routine duties of a legal or social nature.	Ceremony, status requests, solicitations.
Leader	Responsible for the motivation and activation of subordinates; responsible for staffing, training, and associated duties.	Virtually all managerial activities involving subordinates.
Liaison	Maintains self-developed network of outside contacts and informers who provide favors and information.	Acknowledgment of mail; external board work; other activities involving outsiders.
Informational		
Monitor	Seeks and receives wide variety of special information (much of it current) to develop thorough understanding of organization and environment; emerges as nerve center of internal and external information of the organization.	Handling all mail and contacts categorized as concerned primarily with receiving information (e.g., periodical news, observational tours).
Disseminator	Transmits information received from outsiders or from other subordinates to members of the organization; some information factual, some involving interpretation and integration of diverse value positions of organizational influencers.	Forwarding mail into organization for informational purposes, verbal contact involving information flow to subordinates (e.g., review sessions, instant communication flows).
Spokesperson	Transmits information to outsiders on organization's plans, policies, actions, results, etc.; serves as expert on organization's industry.	Board meetings, handling mail, and contacts involving transmission of information to outsiders.
Decisional		
Entrepreneur	Searches organization and its environment for opportunities and initiates "improvement projects" to bring about change; supervises design of certain projects as well.	Strategy and review sessions involving initiation or design of improvement projects.
Disturbance handler	Responsible for corrective action when organization faces important, unexpected disturbances.	Strategy and review sessions involving disturbances and crises.
Resource allocator	Responsible for the allocation of organizational resources of all kinds--in effect, the making or approval of all significant organizational decisions.	Scheduling; requests for authorization; any activity involving budgeting and the programming of subordinates work.
Negotiator	Responsible for representing the organization at major negotiations.	Negotiation.
Technical expert	Providing expertise to projects. Serving as consultant to internal or external projects.	Directing a project or subproject; solving project-centered problems.

^aDefinitions for all roles but "technical expert" are based on Henry Mintzberg's work (1973).

related to managerial performance and organizational effectiveness criteria (Harrison, 1978; Morse & Wagner, 1978). In addition, Alexander (1979) and Pavett and Lau (1981) find that managerial level in the hierarchy and the manager's functional area (e.g., production, sales, research, and development) have strong effects on the extent to which each of Mintzberg's roles are important on the job.

Mintzberg also concluded that "job pressures lead the manager to be superficial in his actions--to overload himself with work, encourage interruption, respond quickly to every stimulus, seek the tangible and avoid the abstract, make decisions in small increments, and do everything abruptly" (1975, p. 60). McCall, Morrison, and Hannan (1978), in a review and summary of observational and work diary studies of managerial work, also report that managers spend considerable time with their subordinates, have little time alone, and experience frequent interruptions and fragmentation of their work. These descriptions of how managers and executives accomplish their roles and functions are referred to as job characteristics.

With respect to research in the public sector, Stanley (1964) conducted a study that focused specifically on the job content of public sector jobs. He used interviews, questionnaires, personal and career data, and group meetings to study the politics, procedures, and institutional concepts affecting high-level federal employees. Bayton and Chapman (1972) described and analyzed the problem of the transition from technical to managerial responsibilities for federal scientists and engineers and concluded that most training and development does not meet the needs of those in transition. Ellison, Abe, and Fox (1978) studied engineers at the GS-11 through GS-16 level at the U. S. Army Corps of Engineers and found strong relationships between GS level and the rated importance of job activities. Higher-level managers spend more time in activities related to personnel training and motivation and they report that these activities are of much greater importance than do lower-level managers. Also, Ellison et al. found that employees spend less time using technical skills as they are promoted up the managerial hierarchy. Katzell, Barrett, Vann, and Hogan (1968) and Clement and Ayres (1976) also report that public sector roles and leadership dimensions vary as a function of organizational level.

Only a few review articles have focused on the similarities and differences between public and private sector management (Murray, 1975; Rainey, Backoff, & Levine, 1976). Other articles have been written by individuals who have been general managers in both business and industry (e.g., Blumenthal, 1979). In a review of public and private sector management, Allison (1980) notes the lack of data comparing management in the two sectors and on what public sector managers do. In short, while thousands of cases carefully document problems faced by private sector managers, the public sector literature consists mostly of speculation about public sector managerial activities.

A recent study (Lau, Broedling, Walters, Newman, & Harvey, 1979) examined the nature of the Navy civilian executive job and attempted to identify the skills needed to function successfully in the naval shore establishment. Job content information on all Navy career civilian executives holding GS-16, 17, 18, or equivalent public law positions ($N = 370$) was collected from interviews, work activity diaries, behavioral observation, and questionnaires. Comparing the results of this study with published private sector studies suggested that public and private sector executives performed the same kind of activities, in terms of both complexity of job content and roles and job characteristics (i.e., the fragmented, high pressure, quick reaction nature of executive positions). Public sector executives also indicated that they had insufficient time to devote to leadership activities, long-range planning, and/or definition of organizational goals (Lau, Newman, & Broedling, 1980; Lau & Pavett, 1980). It appeared to the authors that generalizations regarding differences between public and private sector managers and executives may

frequently be overstated. Before any firm conclusions could be drawn, however, a more direct test of the similarity between public and private sector managers and executives was necessary.

Purpose

The purpose of this research was to compare high-level public and private sector managerial and executive jobs in terms of (1) job content, (i.e., the roles and functions performed), (2) job characteristics (i.e., the way managers and executives accomplish their roles and functions), and (3) perceptions of the skills, knowledge, and abilities required for effective job performance in both sectors. As indicated previously, Mintzberg (1973, 1975) identified ten basic managerial roles that have become generally accepted; this model of managerial work was used in this research to describe executive job content.

Research Questions

The following basic research questions guided the study:

1. Which of Mintzberg's managerial roles are important for success in the public and private sectors? What is the correspondence between the relative importance of these roles in the two sectors?
2. Do managers/executives in the public and private sectors engage in activities that correspond to Mintzberg's managerial role descriptions? What are the major role functions in each sector? Are these role functions the same in the two sectors?
3. Are the characteristics of the public sector managerial job similar to those of the private sector?
4. What types of skills, knowledge, and abilities are perceived as important for effective job performance in the two sectors?

The study has implications for the selection, development, and performance appraisal systems for public and private sector managers and executives. In general, existing systems in both sectors are based more on assumptions or speculation about the nature of executive jobs than on empirical or quantitative information. An accurate description of the job content, characteristics of managerial work, and skills required for job performance is a critical prerequisite for developing effective selection, development, and appraisal programs for managerial positions.

APPROACH

Questionnaire Administration

As indicated previously, job content information was collected on all Navy career civilian executives holding GS-16, 17, 18, or equivalent public law positions ($N = 370$) (Lau, Broedling, Walters, Newman, & Harvey, 1979). Questionnaires measuring job content, job characteristics, and perceived managerial skills, were returned by 210 of these executives (57%). Those who returned the questionnaire were representative of the full Navy executive population in terms of GS-level, occupational field, and organizational affiliation. Sixty-five percent are in a research and development (R&D) career field (science or engineering), 14 percent in weapons systems acquisition, 8 percent in financial manage-

ment, 6 percent in personnel administration, and the remaining 7 percent in intelligence, logistics, or other career fields. Sixty percent of the group held advanced degrees, generally in the physical sciences or engineering.

To gather similar data for private sector executives, a questionnaire was developed and mailed during 1979 and 1980 to a sample of 950 managers and executives who were employed in a variety of southern California service and manufacturing firms. Items in the private sector questionnaire were the same as those used to measure job content, job characteristics, and perceived managerial skills in the public sector. Questionnaires were returned by 228 or 24 percent of those asked to respond. Eighty-seven percent of the respondents were in top or middle-level managerial positions.¹ Managers represented all functional areas within an organization (e.g., R&D, finance, sales, production, etc.). A copy of the questionnaire is provided in Appendix A.

Survey Instruments

The questionnaire completed by Navy career executives included 50 statements describing job content. These statements had been developed using Mintzberg's framework of managerial activities and earlier work by McCall and Segrist (1980). An average of four items measured each of Mintzberg's ten managerial roles. Others measured an eleventh role, that of "technical expert," which was added based on interview information collected earlier in the study (Broedling, Lau, & Walters, 1979). The addition of this role reflected the finding that two-thirds of the Navy civilian executives were in a science or engineering research and development field. Respondents were asked to rate the importance of each of these activities for successful conduct of their work using an 8-point scale, where 0 = of no importance and 7 = great deal of importance. All of these statements, plus four specially developed statements, were included in the questionnaire developed for private sector executives (see item 9, pp. A-3--A-5).

The Navy executive questionnaire also included a number of statements describing managerial work characteristics. They were based upon Mintzberg's descriptions of how executives perform their work. Respondents were asked to indicate how much they agreed with these statements using a 7-point scale, where 1 = strongly disagree and 7 = strongly agree. Nine of these statements were included in the private sector questionnaire (item 10, pp A-5 & A-6).

Preliminary interviews with Navy public sector executives yielded a list of characteristics (skills, types of knowledge, and abilities) that were viewed as important to managerial effectiveness. This list, along with a review of general management theory (e.g., Katz, 1974), was used to generate 30 statements describing characteristics required of managers for inclusion in the Navy executive questionnaire. Respondents were to rate the importance of each, using a 7-point scale, where 1 = of no importance and 7 = very important. All of these statements were included in the private sector questionnaire (item 11, pp. A-6 & A-7).

Analysis

Responses of private and public executives to items on job content, managerial work characteristics, and executive characteristics were compared, and the items within each were factor analyzed. A principal component solution was used and orthogonally rotated

¹Of the 228 respondents, 75 (33%) were presidents, chief executive officers, or vice-presidents of their organization.

to the varimax criteria for factors with eigenvalues exceeding 1.00. The results of the job content factor analysis were used to generate average scores for the 11 a priori roles. The results of the skills and abilities factor analysis were directly used to construct average scores for the underlying dimensions found within each sector. Both sets of combined scores were used to compare managers in the two sectors.

Veldman's (1967) RELATE program was then used to compare the derived factor structures in an additional attempt to identify similarities and/or differences between managers in the two sectors. This procedure arbitrarily equates the origins and vector orientations of the two factor structures (public and private sectors) and then determines analytically the degree of rotation of the factor axes of one of the structures that will result in a maximum degree of overlap between the two structures. The cosines of the angles still existing between the factor vectors may be interpreted as correlations between the factor sets derived from each of the two samples. Hence, the cosines produced by the RELATE program are basically correlations and are interpreted as such.

FINDINGS

Job Content

Table 2 lists the ten job content activities rated highest by public sector executives and indicates how these activities were rated by private sector executives. As shown, six of these activities were also among those rated highest by private sector executives. The five activities rated as most important by public sector executives included three falling under the resource allocator role; and two, under the leader role. Four of these five activities--all but #1--were also included in the five activities rated highest by private sector executives. Appendix B, which provides ratings assigned to the 50 activities included in both questionnaires, shows that private and public sector executives differed significantly ($p < .01$) on 21 of them. In the majority of cases, public sector executives rated the importance of the technical expert, monitor, spokesperson, liaison, and figurehead activities significantly higher than did the private sector executives.

To get a clearer picture of the similarities of and differences between managers and executives in the two sectors, 46 of the 50 job content items included in both questionnaires were combined according to Mintzberg's (1975) model of managerial activities. The other four items were not included because they did not correlate with the other items measuring these particular roles. Table 3 provides the average ratings and rank order of each of the 11 roles. As shown, the relative importance of the resource-allocator role, the technical expert role, and the external managerial roles (monitor, liaison, spokesperson, and figurehead) was significantly higher in the public sector than in the private sector. These external roles involve such activities as learning about customer requirements and needs, keeping sponsors informed, and keeping up with what is going on in external organizations. The technical expert role includes such activities as judging the accuracy of technical programs and providing technical quality control. For the entrepreneur role, the relative importance is significantly higher in the private than in the public sector. There were no significant differences between the two groups on the importance of the leader, disseminator, negotiator, and disturbance-handler roles.

These results may, in part, be due to a difference in the general evaluative sets of the two sectors, which is evidenced by the consistently higher scores seen for the public sector. In order to assess overall similarity, a Spearman rank-order correlation was computed to examine the correspondence between the public and private sector rankings.

Table 2
Job Activities Rated Highest by Public Sector
Executives and Comparative Private Sector Ratings

Role	Activity ^a	Public Sector (N = 210)			Private Sector (N = 228)			Significance
		Mean ^b	SD	Rank	Mean ^b	SD	Rank	
Resource allocator	Determining the long-range plans and priorities of your unit. (24) ^c	5.8	1.3	2	5.5	1.6	5.5	---
Leader	Evaluating the quality of subordinate job performance and providing recognition, encouragement, or criticism. (35) ^c	5.8	1.5	2	5.7	1.4	2	---
Leader	Providing guidance and direction to your subordinates. (12) ^c	5.8	1.6	2	5.8	1.5	1	---
Resource allocator	Allocating resources (manpower, money, material) among programs or units. (1)	5.7	1.6	4.5	4.8	2.1	12	.01
Resource allocator	Allocating your own time. (38) ^c	5.7	1.8	4.5	5.6	1.6	3.5	---
Disseminator	Keeping members of your unit informed of relevant information through meetings, conversations, and dissemination of written information. (26) ^c	5.6	1.5	6.5	5.5	1.4	5.5	---
Monitor	Learning about fleet (consumer) requirements and needs. (34) ^d	5.6	1.8	6.5	3.8	2.3	26	.01
Leader	Attending to staffing requirements in your unit such as hiring, firing, promoting, and recruiting. (2)	5.4	1.6	8.5	4.5	2.1	17	.01
Resource allocator	Participating in defining command (organizational) strategies and policies. (25) ^{c,d}	5.4	1.7	8.5	5.3	1.8	7	---
Technical expert	Judging the accuracy of approach and utility of technical programs and proposals. (50)	5.3	1.8	10	3.0	2.3	39	.01

^aNumbers in parentheses refer to item numbers in Appendix B.

^bBased on responses to an 8-point scale, where 0 = of no importance and 7 = great deal of importance.

^cThese six activities were also among the ten rated highest by private sector executives. The other four were Nos. 15, 18, 39, and 40.

^dWording change for private sector executives given in parentheses.

Table 3
Ratings Assigned to the Importance of Managerial Roles

Role	Public Sector		Private Sector		Significance
	Mean Rating ^a	Rank Order	Mean Rating ^a	Rank Order	
Resource allocator	5.6	1	4.9	2	.01
Leader	5.3	2	5.1	1	--
Disseminator	5.0	3	4.8	3.5	--
Disturbance handler	4.8	4	4.8	3.5	--
Monitor	4.3	5	3.8	6	.01
Technical expert	4.2	6	2.7	10	.01
Entrepreneur	3.9	7	4.4	5	.01
Liaison	3.5	9	3.1	7.5	.01
Spokesperson	3.5	9	2.9	9	.01
Figurehead	3.5	9	3.1	7.5	.01
Negotiator	2.7	11	2.5	11	--

^aBased on responses to a 8-point scale, where 0 = of no importance and 7 = great deal of importance.

Results were significant (.87, $p < .01$), which imply that, despite differences in individual role average ratings, the overall ranking of the 11 roles is very similar.

Factor analyses of the job content items for each sector yielded five interpretable dimensions,² which accounted for 81 and 69 percent respectively of the variance in the responses from the public and private sector executives. The five dimensions were labeled as follows: (1) leadership and supervision, (2) information gathering and dissemination, (3) technical problem solving, (4) decision making, planning, and resource allocation, and (5) negotiation. These factors are described in the following paragraphs.

1. Leadership and supervision. This factor accounted for 54 percent of the variance in public sector executive jobs compared to 29 percent in the private sector. It is closely related to Mintzberg's leader role and involves activities designed to guide and motivate subordinates and to integrate individual and organizational roles. This role also includes programming work for the organizational unit, maintaining supervision over planned change, and keeping subordinates informed of relevant information.

²Since the number of questionnaire items relative to sample size is rather large, one may question the stability of these factors. Veldman's RELATE program (1967) was used to compare the underlying properties of executive job content in the two sectors. The public ($N = 210$) sector sample was split into two random samples and separate factor analyses were performed for each sample. Correlations between the factor loadings derived from the two analyses ranged from .89 to .99, indicating a stable factor structure across both subgroups. The same analysis was performed for the less homogeneous private sector sample with similar results.

2. Information gathering and dissemination. This factor accounted for an additional 10 percent of the public sector variance and 16 percent of the private sector variance. Activities included under this dimension involve a variety of externally-oriented interpersonal and informational roles--figurehead, liaison, monitor, and spokesperson. The activities that represent these roles include gathering information, keeping up with current events, and keeping sponsors informed about work unit activities. Access to information places the executive in a strategic position relative to communication flows between his or her organizational unit and the external environment. The executive then uses this information to coordinate activities of the various organizational units and to guide the total organizational effort in a way that is in keeping with these external events.

3. Technical problem solving. This factor accounted for 7 percent of the public sector variance and 12 percent of the private sector variance. Items included under this dimension reflect the importance of technical activities. While most executives do not actually identify and solve complex engineering or scientific problems themselves, activities included under this dimension involve such processes as judging the usefulness of technical programs and proposals, maintaining close relationship with subordinates over technical projects, and technical management and administration.

4. Decision making, planning, and resource allocation. This factor accounted for 5 percent of the variance in the public sector job content questions and 7 percent of the variance in the private sector. Items reflect a variety of interrelated decisional roles centered around the definition of organizational strategies, determination of long-range plans, and authorization of actions on internal improvement projects. These activities correspond to Mintzberg's decisional roles--entrepreneur, disturbance handler, and resource allocator.

5. Negotiation. This dimension accounted for an additional 5 percent of the public sector variance and 5 percent of the private sector variance. Items refer to activities involved in negotiating labor-management agreements or dealing with union representatives and handling formal grievances.

Veldman's RELATE program, which was used to compare the general underlying structural properties of job activities in the two sectors, resulted in correlations ranging from .93 to .98, indicating a stable structure across the two sectors. It is evident that the two factor structures were very similar even though the five factors did not emerge in the same order.

Job Characteristics

Results of the earlier study on the nature of executive jobs in the public sector suggested that jobs were perceived as being characterized by brevity, variety, and discontinuity and that it was difficult to set and keep a work schedule (Lau, Newman, & Broedling, 1980). The data gathered by observing public service executives also reflected the hectic and fragmented nature of public sector executive jobs.

Table 4 shows the percentage of public and private managers who agree with the items describing managerial work job characteristics. Based on t-tests, the results suggest that public sector executive jobs are characterized more ($p < .01$) than private sector jobs by a constant barrage of crises, fire drills, and meetings that burn up unnecessary time and make it even more difficult for the public sector executive to set, and keep, a work schedule. Public sector managers agreed more strongly than private sector managers that they get the majority of their information from sources other than

the formal management information system ($p < .01$). Both groups agreed that their daily work routine was fragmented with interruptions and unscheduled events and that present job activities do not leave them with enough time for self-development activities. While neither sector felt that socializing was an important part of being a manager, public sector executives saw it as less important ($p < .01$) than did private sector executives.

Table 4
Agreement with Statements Describing Managerial Work Characteristics

Characteristic	Percentage Agreement		
	Public Sector	Private Sector	Significance
You receive the majority of information required to do your job from sources other than formal management information systems.	85	70	.01
Managers place a major emphasis on the present job and therefore devote insufficient time to self-development activities.	73	61	--
Your daily work routine is fragmented with interruptions and unscheduled events.	72	83	--
The greatest block to a manager's job performance is the constant barrage of fire drills.	71	30	.01
In your job it is virtually impossible to set a work schedule and stick to it.	63	41	.01
Meetings burn up an unnecessary amount of time.	63	41	.01
Socializing constitutes an important part of your job.	20	32	.01

These data indicate that there are both similarities and differences in perceived job characteristics for the two sectors. In general, however, meetings and crises in the public sector result in even less time for reflective, systematic planning than in the private sector.

Required Managerial Characteristics

The items describing the required managerial characteristics are listed on Table 5 in the order of importance assigned by the public sector executives. As shown, the most important characteristics for public sector executives concern verbal and written communication, listening to others, technical ability, managerial ability, critical thinking, and persuasiveness. The least important concern survival skills, social relationships with work associates, and building a power base.

Table 5
Importance Ratings Assigned to Required Managerial Characteristics

Characteristic	Public Sector ^{a,b} (N = 106)		Private Sector ^b (N = 228)		Significance
	Mean	SD	Mean	SD	
Ability to communicate verbally (orally).	6.4	0.6	6.3	0.9	--
Ability to communicate in writing.	6.3	0.8	6.0	1.0	.01
Listening carefully to others.	6.2	0.9	6.1	1.0	--
Technical ability in your specialty (e.g., science engineering, personnel, financial management).	6.2	0.9	5.4	1.5	.01
Managerial ability (ability to plan, direct, and evaluate the work of your unit).	6.2	1.3	6.4	0.9	--
Ability to create an environment in which subordinates work effectively.	6.1	1.3	5.9	1.3	--
Critical thinking; questioning methods and techniques that others take for granted.	6.1	1.0	5.7	1.2	.01
Ability to sell one's ideas; persuasiveness.	6.1	0.9	5.8	1.3	--
Flexibility	6.0	1.0	6.1	1.0	--
Coolness under stress.	6.0	1.0	6.1	1.1	--
Being achievement-oriented.	5.8	1.2	5.9	1.2	--
Ability to undertake systematic planning.	5.7	1.0	5.6	1.2	--
Patience.	5.6	1.3	5.6	1.3	--
Developing and maintaining sponsor and consumer satisfaction.	5.6	1.4	4.8	2.0	.01
Willingness to take risks.	5.5	1.3	5.2	1.5	--
Good memory for facts.	5.3	1.3	5.2	1.3	--
Ability to reach conclusions with a minimum of information.	5.2	1.5	5.2	1.4	--
Keeping up-to-date in your technical specialty.	5.2	1.3	4.9	1.7	--
Administrative ability (ability to efficiently progress routine paperwork and other organizational demands).	5.2	1.3	5.6	1.3	.01
Time management ability.	5.1	1.3	5.6	1.2	.01
Willingness to question directives or orders from above.	5.1	1.5	5.0	1.4	--
Crisis management ability.	4.9	1.6	5.3	1.4	--
Ability to recognize when you are licked on a given matter.	4.8	1.5	4.9	1.6	--
Knowing budgeting and finance.	4.6	1.5	4.4	1.7	--
Friendships and connections with superiors.	4.1	1.6	4.2	1.7	--
Working long hours.	3.9	1.8	4.0	1.7	--
Mathematical skills.	3.7	1.6	3.8	1.6	--
Survival skills, being able to protect one's self and one's position from others.	3.4	1.8	3.3	1.7	--
Developing and maintaining social relationships with work associates.	3.2	1.4	3.4	1.6	--
Building a power base.	2.9	1.7	2.9	1.8	--

^aNot all public sector executives were asked to complete this section of the questionnaire. Therefore, this analysis was based on the responses of 106 executives.

^bBased on responses to a 7-point scale, where 1 = not at all important and 7 = very important.

In the factor analysis performed on the responses of public sector executive to these items, six major factors, which accounted for 56 percent of the variance, were identified. These factors are described below:

1. Interpersonal skills. This factor, which accounted for 22 percent of the variance, involves the ability to communicate verbally and in writing, listening skills, flexibility, and persuasiveness.
2. Administrative ability. This factor, which accounted for 10 percent of the variance, involves the ability to plan, to process paperwork and other organizational demands, and to manage both time and externally imposed crises.
3. Risk-taking ability. This factor, which accounted for 8 percent of the variance, includes willingness to take risks, to question directives, and to be achievement oriented.
4. Political skills. This factor, which accounted for 6 percent of the variance, refers to survival skills and building a power base.
5. Technical skills. This factor, which accounted for 5 percent of the variance, includes technical ability and keeping up-to-date in one's technical specialty.
6. Managerial ability. This factor, which accounted for 5 percent of the variance, includes the ability to create an effective work environment for subordinates and to plan and direct the work of an organizational unit.

The factor analysis of responses from the private sector yielded five major factors, which accounted for 74 percent of the variance. These factors, which were very similar to those identified in the public sector, were labeled: (1) interpersonal skills, (2) managerial ability, (3) political skills, (4) administrative ability, and (5) mathematical and technical skills. Correlations (using Veldman's RELATE program, 1967) between the five factor loadings (factors 1, 2, 4, 5, and 6) derived from the public sector analysis and those derived from the private sector analysis ranged from .77 to .99, indicating a high degree of similarity between managers in the two sectors.

Both public and private sector executives agree that the most important characteristics required for effective job performance involve interpersonal skills and managerial ability. Of the 30 required managerial characteristics rated, significant mean differences between the two groups ($p < .01$) were found on only six items. As shown in Table 5, public sector executives rated sponsor satisfaction, writing skills, critical thinking, and technical ability higher than did private sector managers and executives. Private sector managers felt that administrative and time management skills were more important for success than did public sector managers.

CONCLUSIONS AND DISCUSSION

Results of this study indicate that managers and executives in both the public and private sectors were very similar in rating job content. Public sector managers rated 6 out of 11 managerial roles as significantly more important to managerial success than did private sector managers; however, when response bias was eliminated by examining the relative importance of the 11 managerial roles, the two groups were very similar. This similarity was further supported by correspondence between the job content factor structures. Although the public and private sector managers agree about what specific roles are important for success, they disagree on the magnitude of the importance of

specific activities and role behaviors. Thus, the two sectors describe their jobs in very similar but not identical terms. This conclusion is not surprising since situational differences between the two groups should contribute to differences in managerial activities.

While effective management involves an assessment of the environment and the selection of the appropriate managerial activities, as Mintzberg (1973) has concluded, there are similarities across managerial jobs. These similarities are reflected in the correspondence of the relative importance of the roles and the factor structures across both sectors.

While neither the public- nor the private-sector job-content analyses resulted in identifying the 10 distinct managerial roles that Mintzberg described (1973, 1975), the results support Mintzberg's findings that managerial roles in both sectors can be broadly classified as interpersonal, informational, and decisional. The results can be explained in a number of different ways. First, an examination of Mintzberg's role definitions indicates that there is a fair amount of overlap between potential behaviors exemplified by each role. For example, the role of monitor is defined as being a nerve center of internal and external information. A behavioral example of this role is "keeping abreast with what is going on in your unit." However, this behavioral example could also apply to the role of leader. Leadership is defined as virtually all managerial activities involving subordinates. Consequently, these two roles overlap when specific activities are delineated. Second, it is possible that managers do not engage in 10 distinct roles as suggested by Mintzberg. Managers and executives engage in a number of different behaviors and roles, but management theorists may not yet know exactly what these role groups really are.

With respect to job characteristics, the public sector manager or executive is not too dissimilar from his or her private sector counterpart. Both groups indicate that they do not have time for reflective, systematic planning, since their daily routine is fragmented with interruptions and unscheduled events. This situation characterizes the public sector even more than the private sector. This emphasis on getting the present job done leaves both groups of managers with the feeling that they have insufficient time for self-development. Public and private sector managers indicate that they do not rely on a formal information system to accomplish their jobs but, rather, get their information from personal contacts. The results also indicate that public sector managers spend more of their time and energies in crisis management and unscheduled events than do private sector managers.

Public and private sector managers agree on their assessment of the required characteristics that are necessary for effective job performance. These findings suggest that a considerable degree of overlap exists between the two sectors with respect to characteristics that should be assessed when selecting, appraising, or training managerial employees.

The results of this study suggest that generalizations regarding differences between public and private sector managers and executives may frequently be overstated. Moreover, with the recent changes in the public sector toward a process that fits a management-by-objectives philosophy, one can anticipate even closer parallels between the two sectors.

RECOMMENDATIONS

Results have a number of implications with respect to selection, training, and development, as well as to performance appraisal processes within both the public and private sectors. Recommendations based on these implications are provided below.

1. Executive development programs should be based on an analysis of the behaviors and skills that contribute to executive success. Public and private sector organizations devote a large amount of money and time to executive development programs, and managers and executives are exposed to numerous training programs that purport to enhance managerial skills for career success. However, these programs are frequently very broad in nature and are not based upon any analyses of the nature of the manager's job. While both the public and private sectors were very similar in their descriptions of job content, characteristics, and required skills, differences are also apparent. These differences, whether actual or perceived, suggest that executive development programs for the public sector managers should be designed to address the specific contingencies found in the public sector. While the core of the development program may be very similar to the training received by the private sector manager, the differences in the two sectors must be considered to produce effective managers. For example, public sector executives felt more strongly than private sector managers that meetings burn up unnecessary amounts of time and that their jobs are characterized by crisis management. This suggests that time management skills may be more crucial to the public sector manager and should be emphasized in managerial development. A good example of the requirement to tie development and training to actual work conditions is the concept of assessment centers.

Assessment centers are currently gaining popularity in both the public and private sectors as a means of identifying candidates for high level managerial jobs. The assessment center approach, although expensive, appears to represent one of the better technologies available for conducting both selection and development exercises. This procedure simulates the basic managerial situations with which a candidate would be faced if he or she were promoted. The success of this approach, however, depends on the accurate identification of the job activities, roles, job characteristics, and skills that are required at the higher managerial or executive level. If assessment centers are to be used as selection and development vehicles, it is crucial to select exercises and techniques that reflect the skills and behaviors necessary for executive success.

2. Executive performance appraisal systems should be developed based on identified job requirements. Appraisal factors should stress objective, job-related behaviors, activities, and behaviorally defined personality traits that are required for present or future job success. Analysis of the executive job in both sectors should be conducted to ensure that agreement can be reached regarding what the individual must do to meet job requirements and thus permit job performance to be accurately evaluated. Appraisal should also recognize the common activities or skills that vary by organizational level and function.

In the past, executive selection, development, and performance appraisal within both the public and private sectors have frequently been conducted independently of one another, with differing sets of criteria being employed in each process. The present study has indicated that public and private sectors do have much in common and could mutually benefit from each other in terms of the development, selection, and performance systems utilized in each sector. Yet, Allison (1980), among others, argues that improvement in public sector management will not come from massive borrowing of specific private sector executive skills and knowledge. The contingency approach to management, as well as results from the present study, provides support for Allison's argument.

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APPENDIX A
QUESTIONNAIRE USED IN STUDY



Your job as a manager or executive is an important function in any organization and makes a significant contribution to the effectiveness of the organization. The Navy Personnel Research and Development Center is participating in a project with the University of San Diego to examine the nature of the managerial/executive position. This study is aimed at having a cross-section of managers/executives describe their job activities and the importance of those activities. The ultimate goal of our research is to contribute to those efforts designed to improve management training and the preparation of future managers.

The questionnaire, that which you have been asked to fill out, is based upon previous research that describes the nature of the managerial job. Please take a few minutes to fill out this survey, as best you can. We do not want to know your name or the name of your organization since the study is concerned with the description of a broad range of managerial positions. All of the information in this survey will be used for research purposes only and, hence, your individual responses will be unidentifiable.

We plan on concluding our survey work by the end of the year. If you would like to see the overall results of the study, please contact Cynthia Pavett. These results will be presented in the form of the average responses of the entire group of managers who took the survey.

Thank you for taking the time to help our research endeavor and to aid in the understanding of the managerial job. If you have any questions, please feel free to call any of us.

Sincerely yours,

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Managerial Work Questionnaire

(Col. 4) 1. Which of the following best describes your position within the total organization? (check one)

- (1) President or Chief Executive Officer
- (2) Vice President
- (3) Division, Product or Regional Manager
- (4) Mid-level manager
- (5) First-line supervisor or manager

(Col. 5) 2. Which of the following best describes the nature of your position?
 (1) Line manager (directly responsible for overall operations or production, distribution, sales, etc.)
 (2) Staff manager (responsible for providing information, assistance, recommendations or advice to one or more line managers)

(Col. 6-7) 3. Which of the following best describes your area of responsibility within the organization? (check one)

- (1) sales
- (2) marketing
- (3) production
- (4) engineering
- (5) accounting
- (6) finance
- (7) research & development or research
- (8) personnel
- (9) general administration
- (10) customer service
- (11) Other (please specify below)

(Col. 8) 4. How would you describe the general size of your organization? If your organization is a subsidiary or division of a larger organization, please describe the size of the division or subsidiary.

- (1) large firm (based upon either number of employees, sales or assets)
- (2) medium sized firm
- (3) small firm

(Col. 9-10) 5. What is the main business of your organization?

(Col. 11) 6. How long have you been in your present position?

- (1) less than 1 year
- (2) 1-2 years
- (3) 3-5 years
- (4) 6-9 years
- (5) ten years or over

(Col. 12-13) 7. How many people report directly to you?

8. The following are several common, specific, worker activities. Please estimate the approximate proportion of a "typical" work week that is spent in each category. Please use percentages to estimate the amount of time you spend doing the following things. Don't be overly concerned if your total percentages do not add up to exactly 100%.

(Col. 14-15)	<input type="checkbox"/> (a) working at your desk alone (e.g., reading correspondence)
(Col. 16-17)	<input type="checkbox"/> (b) at formal meetings within the organization
(Col. 18-19)	<input type="checkbox"/> (c) engaged in informal discussions with other personnel in the organization and/or at unscheduled meetings
(Col. 20-21)	<input type="checkbox"/> (d) talking on the telephone to parties within and outside of the organization
(Col. 22-23)	<input type="checkbox"/> (e) away from the organization on business
(Col. 24-25)	<input type="checkbox"/> (f) formally observing or supervising personnel and/or work activities
(Col. 26-27)	<input type="checkbox"/> (g) handling disturbances, trouble-shooting, etc.
(Col. 28-29)	<input type="checkbox"/> (h) training or instructing others
(Col. 30-31)	<input type="checkbox"/> (i) other activities that account for the balance of your time (please specify major activities) _____

9. Below are a number of activities that may be required in your job. Please rate the importance of each activity to you in the successful conduct of your work (regardless of how much time each activity requires).

By marking an "0" you would indicate that an activity is of no importance to you. The higher numbers indicate a great deal of importance. Write the appropriate number in to the left of each activity.

Unit refers to the organizational segment which falls under you or for which you have responsibility, (e.g., a department or branch).

None	Importance							Great Deal
	0	1	2	3	4	5	6	

(Col. 32) _____ Allocating resources (manpower, money, material) among programs or units.

	None	Importance							Great Deal
		0	1	2	3	4	5	6	
(Col. 33)	—	Attending to staffing requirements in your unit, such as hiring, firing, promoting, recruiting.							
(Col. 34)	—	Keeping abreast of who is doing what in your unit.							
(Col. 35)	—	Making yourself available to "outsiders" (such as consumers, sponsors, the public) who want to go to "the person in charge."							
(Col. 36)	—	Attending to the training and development needs of your employees.							
(Col. 37)	—	Keeping sponsors, consumers, or other important groups informed about your unit's activities and capabilities.							
(Col. 38)	—	Exploiting or initiating opportunities to improve or expand as a unit.							
(Col. 39)	—	Gathering information from or about sponsors and consumers.							
(Col. 40)	—	Touring your own organization's staffs and facilities.							
(Col. 41)	—	Negotiating labor-management agreements or dealing with union representatives.							
(Col. 42)	—	Handling formal grievances.							
(Col. 43)	—	Providing guidance and direction to your subordinates.							
(Col. 44)	—	Joining boards, organizations, clubs, or doing public service work which might provide useful, work-related contacts.							
(Col. 45)	—	Keeping professional colleagues informed about your unit.							
(Col. 46)	—	Taking immediate action in response to a crisis or "fire drill."							
(Col. 47)	—	Staying tuned to what is going on in outside organizations, including the professional and scientific communities.							
(Col. 48)	—	Developing new contacts by answering requests for information.							
(Col. 49)	—	Maintaining supervision over planned changes to improve your unit.							
(Col. 50)	—	Developing personal relationships with people outside your unit who sponsor your work or service.							
(Col. 51)	—	Answering letters or signing documents as an official representative of your unit.							
(Col. 52)	—	Escorting and briefing official visitors.							
(Col. 53)	—	Keeping the general public informed about your unit's activities, plans, or capabilities.							
(Col. 54)	—	Dealing with previously ignored problems (ones which people have known to exist but avoided), which have come to a head.							
(Col. 55)	—	Determining the long-range plans and priorities of your unit.							
(Col. 56)	—	Participating in defining organizational strategies and policies.							
(Col. 57)	—	Keeping members of your unit informed of relevant information through meetings, conversations, and dissemination of written information.							
(Col. 58)	—	Defending your unit's projects and activities to other groups.							
(Col. 59)	—	Monitoring output of formal management information systems, including productivity measures and cost accounting records.							
(Col. 60)	—	Evaluating the outcomes of internal improvement projects.							
(Col. 61)	—	Participating alone or on a team in atypical negotiations with outsiders.							
(Col. 62)	—	Identifying and solving complex engineering or scientific problems yourself.							
(Col. 63)	—	Consulting with others on technical matters.							
(Col. 64)	—	Implementing the directives of higher authorities.							
(Col. 65)	—	Learning about consumer requirements and needs.							

		Importance							Great Deal
		None	0	1	2	3	4	5	
(Col. 66)	_____	Evaluating the quality of subordinate job performance and providing recognition, encouragement or criticism.							
(Col. 67)	_____	Negotiating with groups outside your organization for necessary materials, support, commitments, etc.							
(Col. 68)	_____	Negotiating with groups internal to your organization for necessary materials, support, commitments, etc.							
(Col. 69)	_____	Allocating your own time.							
(Col. 70)	_____	Integrating subordinate's goals (e.g., career goals, work preferences) with the organization's work requirements.							
(Col. 71)	_____	Programming work for your unit (what is to be done, when, and how) and assigning people to work on it.							
(Col. 72)	_____	Working with people to see that necessary contracts get negotiated.							
(Col. 73)	_____	Attending business meetings or social gatherings as an official representative of your unit or organization.							
(Col. 74)	_____	Transmitting ideas and information from your outside contacts to appropriate people inside your organization.							
(Col. 75)	_____	Preventing the loss or threat of loss of resources valued by your unit.							
(Col. 76)	_____	Resolving conflicts either within your unit or between your unit and other organizational components.							
(Col. 77)	_____	Attending outside conferences or meetings.							
(Col. 78)	_____	Participating in EEO activities and responsibilities.							
(Col. 79)	_____	Directing a technical project or subproject.							
(CARD 2)									
(Col. 4)	_____	Providing technical quality control through the review process.							
(Col. 5)	_____	Judging the accuracy of approach and utility of technical programs and proposals.							
(Col. 6)	_____	Providing new employees with adequate training and introduction to the job.							
(Col. 7)	_____	Directing the work of your subordinates.							
(Col. 8)	_____	Keeping up with market changes and trends that might have an impact on your unit or organization.							
(Col. 9)	_____	Distributing budgeted resources.							

10. Indicate how much you agree with the following statements using this scale.

		Strongly Disagree				Strongly Agree			
		1	2	3	4	5	6	7	
(Col. 10)	_____	The greatest block to a manager doing his or her job is the constant barrage of fire drills.							
(Col. 11)	_____	Socializing constitutes an important part of your job (e.g., cocktail parties, dinner parties, business lunches).							
(Col. 12)	_____	In your job, it is virtually impossible to set a work schedule and stick to it.							
(Col. 13)	_____	Meetings burn up an unnecessary amount of time.							
(Col. 14)	_____	Managers who have a technical/professional background are generally more loyal to the organization than to their profession.							

	Strongly Disagree	Neutral			Strongly Agree		
	1	2	3	4	5	6	7
(Col. 15)	<input type="checkbox"/>	Your daily work routine is fragmented with interruptions and unscheduled events.					
(Col. 16)	<input type="checkbox"/>	You get the majority of information required to do your job from sources other than formal management information systems.					
(Col. 17)	<input type="checkbox"/>	Giving briefings and tours to official visitors interferes with your ability to do your job effectively.					
(Col. 18)	<input type="checkbox"/>	Managers place a major emphasis on getting the present job done and, therefore, devote insufficient time to self-development activities.					

CHARACTERISTICS REQUIRED OF MANAGERS

11. Indicate the importance of the following to you in performing your job effectively. Rate each item using this scale.

	Of No Importance	Moderately Important			Very Important		
	1	2	3	4	5	6	7
(Col. 19)	<input type="checkbox"/>	Technical ability in your specialty (e.g., science, engineering, personnel, financial management)					
(Col. 20)	<input type="checkbox"/>	Administrative ability (ability to efficiently process routine paperwork and other organizational demands)					
(Col. 21)	<input type="checkbox"/>	Managerial ability (ability to plan, direct, and evaluate the work of your unit)					
(Col. 22)	<input type="checkbox"/>	Working long hours					
(Col. 23)	<input type="checkbox"/>	Developing and maintaining sponsor and consumer satisfaction					
(Col. 24)	<input type="checkbox"/>	Ability to sell one's ideas; persuasiveness					
(Col. 25)	<input type="checkbox"/>	Ability to undertake systematic planning					
(Col. 26)	<input type="checkbox"/>	Good memory for facts					
(Col. 27)	<input type="checkbox"/>	Ability to create an environment in which subordinates work effectively					
(Col. 28)	<input type="checkbox"/>	Listening carefully to others					
(Col. 29)	<input type="checkbox"/>	Mathematical skills					
(Col. 30)	<input type="checkbox"/>	Ability to communicate verbally					
(Col. 31)	<input type="checkbox"/>	Ability to communicate in writing					
(Col. 32)	<input type="checkbox"/>	Ability to reach conclusions with a minimum of information					
(Col. 33)	<input type="checkbox"/>	Critical thinking; questioning methods and techniques that others take for granted					
(Col. 34)	<input type="checkbox"/>	Willingness to take risks					
(Col. 35)	<input type="checkbox"/>	Willingness to question directives or orders from above					
(Col. 36)	<input type="checkbox"/>	Keeping up-to-date in your technical specialty					
(Col. 37)	<input type="checkbox"/>	Friendships and connections with superiors					
(Col. 38)	<input type="checkbox"/>	Survival skills, being able to protect one's self and one's position from others					
(Col. 39)	<input type="checkbox"/>	Building a power base					
(Col. 40)	<input type="checkbox"/>	Knowing budgeting and finance					
(Col. 41)	<input type="checkbox"/>	Crisis management ability					
(Col. 42)	<input type="checkbox"/>	Time management ability					
(Col. 43)	<input type="checkbox"/>	Patience					
(Col. 44)	<input type="checkbox"/>	Coolness under stress					

Of no Importance	Moderately Important	Very Important
1	2	3
4	5	6
7		
(Col. 45)	Flexibility	
(Col. 46)	Being achievement-oriented	
(Col. 47)	Developing and maintaining social relationships with work associates	
(Col. 48)	Ability to recognize when you are licked on a given matter.	

THANK YOU VERY MUCH FOR YOUR COOPERATION IN COMPLETING THIS QUESTIONNAIRE

Cynthia M. Pavett
Alan Lau

APPENDIX B

**IMPORTANCE OF JOB ACTIVITIES PERFORMED BY PUBLIC
AND PRIVATE SECTOR EXECUTIVES**

Table B-1
Importance of Job Activities Performed by Public
and Private Sector Executives

Item	Role	Private Sector (N = 228)		Public Sector (N = 210)		Significance
		Mean ^a	SD	Mean ^a	SD	
1. Allocating resources (manpower, money, material) among programs or units.	Resource allocator	4.8	2.1	5.7	1.6	.01
2. Attending to staffing requirements in your unit such as hiring, firing, promoting, recruiting.	Leader	4.5	2.1	5.4	1.6	.01
3. Keeping abreast of who is doing what in your unit	Monitor	4.8	1.6	5.2	1.6	---
4. Making yourself available to "outsiders" such as consumers, sponsors, the public) who want to go to the person in charge."	Figure-head	3.4	2.0	4.0	2.0	.01
5. Attending to the training and development needs of your employees.	Leader	4.4	1.7	4.7	1.8	---
6. Keeping sponsors, consumers, or other important groups informed about your unit's activities and capabilities.	Spokes-person	3.6	2.0	4.9	1.7	.01
7. Exploiting or initiating opportunities to improve or expand as a unit.	Entrepreneur	4.8	2.1	4.4	2.0	---
8. Gathering information from or about sponsors and consumers.	Monitor	2.9	2.1	3.5	2.1	.01

^aBased on responses to an 8-point scale, where 0 = of no importance and 7 = great deal of importance.

Table B-1 (Continued)

Item	Role	Private Sector (N = 228)		Public Sector (N = 210)		Significance
		Mean ^a	SD	Mean ^a	SD	
9. Touring your own organization's staffs and facilities.	Monitor	3.2	2.1	3.6	2.0	---
10. Negotiating labor-management agreements or dealing with union representatives.	Negotiator	1.2	2.0	0.6	1.5	.01
11. Handling formal grievances.	Negotiator	2.2	2.4	2.7	2.7	---
12. Providing guidance and direction to your subordinates.	Leader	5.8	1.5	5.8	1.6	---
13. Joining boards, organizations, clubs, or doing public service work which might provide useful, work-related contacts.	Liaison	2.3	2.0	2.3	2.0	---
14. Keeping professional colleagues informed about your unit.	Spokesperson	3.3	2.0	3.9	1.8	.01
15. Taking immediate action in response to a crisis or fire drill."	Disturbance handler	5.6	1.7	5.1	1.9	---
16. Staying tuned to what is going on in outside organizations, including the professional and scientific communities.	Monitor	4.2	1.8	4.9	1.7	.01
17. Developing new contacts by answering requests for information.	Liaison	3.2	1.9	2.8	2.0	---
18. Maintaining supervision over planned changes to improve your unit.	Entrepreneur	4.9	1.7	4.3	2.0	.01
19. Developing personal relationships with people outside your unit who sponsor your work or service.	Liaison	4.2	2.1	4.8	2.0	.01

^aBased on responses to an 8-point scale, where 0 = of no importance and 7 = great deal of importance.

Table B-1 (Continued)

Item	Role	Private Sector (N = 228)		Public Sector (N = 210)		Significance
		Mean ^a	SD	Mean ^a	SD	
20. Answering letters or signing documents as an official representative of your unit.	Figure-head	3.9	2.1	4.2	1.9	---
21. Escorting and briefing official visitors.	Figure-head	2.6	2.0	3.2	2.1	.01
22. Keeping the general public informed about your unit's activities, plans, or capabilities.	Spokes-person	2.0	2.1	1.8	2.0	---
23. Dealing with previously ignored problems (ones which people have known to exist but avoided), which have come to a head.	Disturbance handler	4.6	1.8	4.3	2.0	---
24. Determining the long-range plans and priorities of your unit.	Resource allocator	5.5	1.6	5.8	1.3	---
25. Participating in defining organizational strategies and policies.	Resource allocator	5.3	1.8	5.4	1.7	---
26. Keeping members of your unit informed of relevant information through meetings, conversations, and dissemination of written information.	Disseminator	5.5	1.4	5.6	1.5	---
27. Defending your unit's projects and activities to other groups.	Spokes person	3.5	2.1	4.7	2.1	.01
28. Monitoring output of formal management information systems, including productivity measures and cost accounting records.	Monitor	3.4	2.2	3.2	2.3	---
29. Evaluating the outcomes of internal improvement projects.	Entrepreneur	3.9	1.8	3.5	2.0	---

^aBased on responses to an 8-point scale, where 0 = of no importance and 7 = great deal of importance.

Table B-1 (Continued)

Item	Role	Private Sector (N = 228)		Public Sector (N = 210)		Significance
		Mean ^a	SD	Mean ^a	SD	
30. Participating alone or on a team in atypical negotiations with outsiders.	Negotiator	3.1	2.2	3.0	2.4	---
31. Identifying and solving complex engineering or scientific problems yourself.	Technical expert	1.6	2.1	2.8	2.4	.01
32. Consulting with others on technical matters.	Technical expert	3.4	2.1	4.6	1.8	.01
33. Implementing the directives of higher authorities.	Disseminator	4.8	1.8	4.4	2.1	---
34. Learning about consumer requirements and needs.	Monitor	3.8	2.3	5.6	1.8	.01
35. Evaluating the quality of subordinate job performance and providing recognition, encouragement, or criticism.	Leader	5.7	1.4	5.8	1.5	---
36. Negotiating with groups outside your organization for necessary materials, support, commitments, etc.	Negotiator	3.3	2.2	4.3	2.1	.01
37. Negotiating with groups internal to your organization for necessary materials, support, commitments, etc.	Negotiator	4.1	2.0	4.4	2.0	---
38. Allocating your own time.	Resource allocator	5.6	1.6	5.7	1.8	---
39. Integrating subordinate's goals (e.g., career goals, work preferences) with the organization's work requirements.	Leader	5.0	1.6	4.4	2.1	---

^aBased on responses to an 8-point scale, where 0 = of no importance and 7 = great deal of importance.

Table B-1 (Continued)

Item	Role	Private Sector (N = 228)		Public Sector (N = 210)		Significance
		Mean ^a	SD	Mean ^a	SD	
40. Programming work for your unit (what is to be done, when, and how) and assigning people to work on it.	Resource allocator	5.1	1.7	4.7	2.1	---
41. Working with people to see that necessary contracts get negotiated.	Negotiator	3.2	2.4	3.3	2.4	---
42. Attending business meetings or social gatherings as an official representative of your unit or organization.	Figure-head	3.1	2.0	3.0	2.2	---
43. Transmitting ideas and information from your outside contacts to appropriate people inside your organization.	Disseminator	4.0	2.0	4.4	1.9	---
44. Preventing the loss or threat of loss of resources valued by your unit.	Disturbance handler	4.4	2.3	4.8	2.3	---
45. Resolving conflicts either within your unit or between your unit and other organizational components.	Disturbance handler	4.6	2.0	4.9	1.9	---
46. Attending outside conferences or meetings.	Liaison	2.8	1.7	4.2	1.8	.01
47. Participating in EEO activities and responsibilities.	Leader	2.7	2.3	4.1	2.4	.01
48. Directing a technical project or subproject.	Technical expert	2.4	2.4	3.1	2.6	.01
49. Providing technical quality control through the review process.	Technical expert	2.8	2.3	5.1	2.0	.01
50. Judging the accuracy of approach and utility of technical programs and proposals.	Technical expert	3.0	2.3	5.3	1.8	.01

^aBased on responses to an 8-point scale, where 0 = of no importance and 7 = great deal of importance.

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